V. Short-Term Action Plan

This short-term action plan presents steps that the Company intends to take in implementing its Integrated Resource Plan ("IRP") for the next three years (2021 to 2023).

A. Monitoring of Decision Points Concerning Changes in System Supply Economics

During the three-year scope of this plan, the Company intends to carefully monitor changes affecting future generation plans. These changes include changes in natural gas prices, regulatory and legislative requirements regarding CO_2 emissions, the costs of storage technologies and developments in other environmental policies and generating technologies.

At present, the Company's reserves are fully sufficient to meet customers' capacity needs in the near term. Furthermore, the Company's acquisition of approximately 973 MW of solar capacity, coupled with low-priced natural gas supplies, has reduced the Company's 10-year avoided energy cost to less than $30/MWh. Because of the low current marginal cost of energy on the system, additional renewable resources are unlikely to result in fuel cost savings for customers in the short run.

However, the Company will continue to monitor reliance on current resources to determine if they are in the customers' best interest. If a sustained increase in natural gas prices or other fossil fuels were to occur or if implementing reductions in CO_2 emissions became advisable as a matter of environmental compliance or regulatory policy, a shift in the Company's strategic direction related to system supply could be warranted. The Company intends to carefully monitor these conditions and revise its planning accordingly.

In the meantime, it is in customers' best interest for the Company to continue operating its existing portfolio of renewable, fossil and nuclear generation resources while the Company executes its plans to:

- Refine its IRP planning models by implementing the PLEXOS resource optimization model,
- Reevaluate its approach to key planning inputs like natural gas prices, future customer demands including electric vehicle adoption, environmental constraints and the cost of renewables and storage,
- Review its DSM portfolio for the potential to increase reductions in sales growth,
- Implement new demand reduction programs made possible by AMI, and
- Initiate an IRP stakeholder process.

Accomplishing these things will result in better information and options being available when future resource planning decisions are required in future years.

B. The 2020 Resource Plans and Their Role in This Implementation Approach

The Company intends to update or revise its IRP annually to reassess its designation of the preferred resource plan in light of potentially changing market conditions and state or federal environmental laws or regulations. In the 2020 IRP, RP2 has been determined to be the plan that will be the least costly to customers if natural gas prices stay on course to remain at historically low levels. But it is also vulnerable to increases in natural gas costs and involves the lowest level of future renewable generation and the lowest reduction in future CO_2 emissions.

Should natural gas prices or CO_2 requirements change, then either RP7 or RP8 could become the preferred path forward to protect customers' interests. RP8 provides for the greatest reduction in CO_2 emissions and will provide the greatest protections for customers in a CO_2 constrained environment, particularly if there is restrained growth in natural gas prices. But RP7 involves adding a greater amount of non-fossil generation to the system. In a CO_2 constrained environment, RP7 may be preferable to RP8 should the industry move towards a high natural gas cost environment.

At the core of this short-term action plan is the Company's intention to monitor changes in these variables and update the IRP annually to reflect those changes.

C. Generation Retirement Planning

The Company has retired or repowered eight of its 12 coal units in the last 18 years. The Company intends to perform retirement studies on the three coal units at Wateree and Williams Stations during the three-year scope of this plan. The Company intends to initiate a retirement study for Wateree Station, which is the largest of the three remaining coal fired stations on its system, in early 2021 and intends to determine the optimum date for its retirement within 18 to 24 months thereafter. The Company's goal will be to complete the Wateree Station Retirement study during the second year of the three-year short-term action plan. Once a timeline for the potential retirement of Wateree Station is determined, the Company will then initiate retirement planning for Williams Station, which will depend on the characteristics of the generation and transmission system when modeled reflecting the date chosen for Wateree Station's retirement. Concurrently with these retirement studies, the Company will also study the potential retirement of the three older units, Urquhart 3 and McMeekin 1 and 2, that were converted from coal to natural gas status in 2015.

D. Combustion Turbine Replacement Program

The inclusion of approximately 973 MW of intermittent solar generation on the Company's system has placed additional demands on its aging fleet of simple cycle combustion turbines. The Company's current fleet of simple cycle combustion turbines includes a number of units that are nearing the end of their expected useful lives for units of this type. Early in the planning period, the Company will complete its evaluation of the replacement of certain older units with modern aero-derivative replacements. These modern units have reliability and efficiency advantages that become important as intermittent resources are added. The new units would be uniquely capable of responding to unanticipated fluctuation in generation resources on the system caused by the

interaction of solar generation with changing weather conditions.

E. Demand-Side Management

During the three-year scope of this plan, the Company will complete the second, third and fourth years of the five-year DSM program, which this Commission approved in Order No. 2019-880. Each year the Company will review its DSM programs against the results of the annual Evaluation, Measurement and Verification report completed on those programs by the independent evaluator. The Company will present those results annually to the Commission and to its DSM stakeholder group. The DSM stakeholder group will continue to meet at a minimum twice per year.

Planning for the 2025 suite of DSM programs will begin in year three of this short-term action plan with stakeholder review of the scoping of the potential study plan and methodology for preparing it. The Company intends to present a new suite of DSM programs to the Commission for review and approval in 2024. As the Commission required in Order No. 2019-880, the next DSM potential study will include a consideration of technical potential, economic potential, and maximum achievable potential of 1% or more of energy savings. It should be noted that the 2020 Duke Energy Efficiency and Demand-Side Management Market Potential Study for both North Carolina and South Carolina was filed with the North Carolina Utilities Commission reporting forecasted savings under 1% of retail sales.[1]

Investor-owned utilities generally take one of two approaches to demand side management programs: 1) Using a bottom-up assessment of the technical, economic and achievable potential in the service area, the utility develops a program portfolio to achieve participation, energy savings and demand savings based on the results of the assessment or 2) Where state mandates exist, energy savings targets may be determined by the utility regulators or state legislature. This approach usually results in higher targets and a regulatory commitment to increasing short-term costs to ratepayers in exchange for long-term gains.

In the absence of a state mandate, the Company has heretofore chosen the former approach, which has resulted in a portfolio that is reasonably and practicably achievable while also taking a balanced approach to DSM rate rider impacts. The Commission supported this approach in Order No. 2019-880.

According to the 2020 Utility Energy Efficiency Scorecard published by the American Council for an Energy Efficient Economy, less than half of the 52 largest utilities surveyed produced savings of 1% or greater of retail sales, and only three utilities of ten in the Southeast achieved that level of savings, with a Southeast average of 0.48%.[2] The basis for the report are utility savings achieved in the year 2018. Nonetheless, in light of stakeholder comments related to the 2020 IRP, the Company intends to undertake a target-based review of its DSM programs to determine whether a 1% level of savings can be achieved within the cost-effectiveness limits imposed by the DSM statute. In this review, the Company's outside DSM consultant will assess the potential of expanding six programs as identified in the late-filed exhibit by the Coastal Conservation League and the Southern Alliance for Clean Energy:

[1] https://starw1.ncuc.net/NCUC/ViewFile.aspx?Id=34db6294-2777-45bb-b177-87fdfae3f6b7
[2] https://www.aceee.org/utility-scorecard

1. The Municipal Lighting Program,
2. The Small Business Direct Install Program,
3. The Neighbor Energy Efficiency Program,
4. The Residential EnergyWise Savings Store,
5. The Residential Home Energy Reports Program, and
6. The Residential HVAC Program.

The Company intends to have its DSM consultant, ICF, prepare an analysis of the potential cost of achieving the 1% energy savings goal through targeted increases in these programs. The Company intends to have that study available for presentation to stakeholders in late December of 2020 or early January of 2021 and for review and possible approval for implementation by the Public Service Commission of South Carolina during the annual DSM update proceeding in January of 2021.

The Company expects that before the end of this three-year period, it will have completed the installation of sufficient AMI meters on its system that it can begin the process of preparing a new potential study and implementation plan for additional residential and commercial demand reduction programs.

F. Changes to the IRP Planning Process

During the three-year scope of this plan, the Company intends to conduct a sweeping review of its IRP planning software and inputs. The implementation of the PLEXOS resource optimization software is underway. The Company intends to make a decision in late 2020 or January of 2021 concerning whether this implementation will be far enough advanced for the new modeling software to be used in the 2021 IRP update. If not, the Company intends to use PLEXOS in preparing the 2022 IRP update. By 2023, PLEXOS will enable DESC to select a single optimal set of resources for each scenario instead of comparing several non-optimal resource plans in several scenarios.

In parallel with implementing the PLEXOS software, the Company also intends to reevaluate key inputs to the planning model based on comments received from stakeholders in the 2020 IRP process. Among the inputs the Company intends to evaluate in light of stakeholder comments are its approaches

1. To model dual reserve margins needed to meet summer and winter loads;
2. To reflect VACAR reserve sharing requirements in its capacity reserve margin calculation;
3. To forecast natural gas prices; and
4. To model demand and energy growth on its system.

The Company also intends to include multiple load growth forecasts and CO_2 price assumptions in its sensitivity studies and to model a wider range of values for future load growth, CO_2 prices and natural gas prices in future analyses.

The Company intends to implement a stakeholder process to review its IRP modeling

consistent with the stakeholder process used for its current DSM program. That process is intended to involve meetings annually, at a minimum, to review model inputs and scoping and draft model runs to be presented in IRP and IRP update filings. It is expected that this process will be implemented to allow stakeholder input into the preparation of the 2022 IRP update proceeding.

G. Transmission

Over the next three years, the Company will continue to assess its transmission system and construct facilities required to meet the needs of its customers. Generally, the Company anticipates undertaking transmission projects that are needed to rebuild certain aging or stressed infrastructure. Those projects are set forth in the transmission section of this IRP.

The Company will also explore options to address probable system reliability issues resulting from the addition of significant renewable energy resources to its system and the retirement of coal-fired facilities. Finally, the Company will continue its long-term analysis of the actions and costs associated with the retirement of dispatchable carbon-emitting generating units and the integration of large volumes of intermittent renewable generation on the transmission system.

H. Distribution

Over the next three years, the Company will continue to assess the ability of its distribution system to meet customer demands and to adapt the distribution grid to meet the needs of a changing electrical system. Specifically, the Company expects to complete the installation of approximately 600,000 electric AMI meters and to continue to extend the scope of its automated and remotely-operable distribution relay and switching infrastructure. The Company intends to monitor the penetration of electric vehicles on its system and ascertain the scope and timing of any distribution system upgrades required to accommodate the resulting demands placed on its distribution system.